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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,779	08/06/2003	Tetsuya Otosaka	SH-0037US	7630

21254 7590 11/18/2005

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EXAMINER	
IVEY, ELIZABETH D	

ART UNIT	PAPER NUMBER
1775	

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/634,779	OTOSAKA ET AL.	
	Examiner	Art Unit	
	Elizabeth Ivey	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 20-29* is/are pending in the application.

4a) Of the above claim(s) *11-19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 20-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *16 August 2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1, 6, 8, 9, 20-23, and new claims 24 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 6, 8, 9, 20-23, and new claims 24 and 29 are indefinite since they recite functional limitations without any accompanying compositional limitations. Ex parte SLOB 157 USPQ 172 (1967).

Claims merely setting forth physical characteristics desired in [sic] article, and not setting forth specific compositions which would meet such characteristics, are invalid as vague and indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in future and which impart desired characteristics. Ex parte SLOB 157 USPQ 172 (1967).

Regarding claims 1, 6, 8, 9, 20-23, and new claims 24 and 29, said claims provide no structure or composition and set forth only desired viscosity and transmission loss characteristics.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-10, and 25-27, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,067,793 to Bachmann et al.

Regarding Claims 1-4 and 6-9 and 25-27, Bachmann discloses a solid preform for drawing an optical fiber having a core, which is doped with Ge and a multiple number of claddings. Bachmann discloses an outer tube of quartz glass manufactured from quartz crystals, a first layer (inside the tube) of synthetic quartz glass (column 3 lines 12-30). The viscosities and radial viscosity distributions are properties inherent to the materials. A chemical composition and its properties are inseparable. *MPEP 2112.02.* Because the prior art exemplifies the applicant's claimed composition in relation to the quartz glass, the claimed physical property relating to the viscosity is inherently present in the prior art. Absent an objective evidentiary showing to the contrary, the addition of the claimed physical property to the claim language fails to provide patentable distinction over the prior art.

Regarding claim 10, claim 10 is a product by process claim wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *See MPEP 2113.* Absent an evidentiary showing of criticality resulting in unexpected results between the claimed invention and the prior art. As such, the process limitation within claim 10 does not provide patentable distinction over the prior art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,067,793 to Bachmann et al.

Regarding claim 28, Bachmann discloses all of the limitations of claims 1 and 2 and although Bachmann does not expressly disclose the diameter of the inner clad layer as less than 80% of an outer diameter of the perform, Bachmann discloses $R_4>R_3>R_2>R_1>R_c$ subsequently resulting in $D_4>D_3>D_2>D_1>D_c$. Therefore it would have it would have been obvious to a person having ordinary skill in the art at the time of the invention to adjust the percentage relationship in diameters for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,067,793 to Bachmann et al in view of U.S. Patent Re. 30,883 to Rau et al. Bachmann discloses an optical fiber preform wherein a quartz inner clad layer is doped with at least one of the dopants consisting essentially of chlorine, germanium, fluorine or phosphorous. Bachmann specifically mentions germanium and fluorine (column 3 lines 19-29). Bachmann does not specifically disclose the doped layers to be a synthetic quartz glass. Rau discloses the use of a covering of doped synthetic quartz glass to obtain a foreproduct, or preform, in the manufacture of light conducting fibers (optical fibers) (column 2 lines 39-43) and suggests it is particularly useful for the manufacture of fibers whose core consists of quartz glass of high purity (column 3

lines 35-37). Bachmann teaches the importance of having minimal dispersion and low losses and the describes use of dopants to obtain "the ultimate preform" with specifically varied refractive index layers (column 3 lines 30 – 36). Because Rau teaches a synthetic quartz glass whose index of refraction can be varied in a prescribed manner with the use of dopants (column 2 lines 11-32), it would be obvious to a person having ordinary skill in the art at the time of the invention to use the synthetic doped quartz glass of Rau as the doped quartz of Bachmann.

Response to Arguments

Applicant's arguments filed August 16, 2005 have been fully considered but they are not persuasive.

Regarding the U.S.C 112 second paragraph rejection, the two cladding layers and compositions thereof appear to be a critical feature to achieve viscosity distributions and transmission losses as claimed.

Regarding Bachmann, applicant has offered no argument that the article of Bachmann can not have the claimed features.

Regarding applicant's arguments of rise in transmission loss caused by an OH peak, the purpose of the claimed invention is not commensurate in scope with the claims.

Regarding applicant's arguments that the U.S.C 103 rejection is not applicable because Rau and Bachmann are not related, examiner holds that both Bachmann and Rau are related to optical fibers and/or the making and use of optical fibers and are therefore related.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Ivey whose telephone number is (571) 272-8432. The examiner can normally be reached on 7:00- 4:30 M-Th and 7:00-3:30 alt. Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571)272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elizabeth D. Ivey

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JENNIFER MCNEIL
PRIMARY EXAMINER
11/2/05